***NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

HW#9: Distance Formula

Geometry

Due: Monday. September 21st

Failure to show your work will result in LaSalle. If you need more space, use the back or graph paper.

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| 1) Find the distance of C to D. Leave in radical form. | 2) Aurora is located at (0,0) and Naperville is located at (-20, 2). Fenwick is located at (5, -11) and Chicago at (19,4). The coordinates are given in miles (round to nearest tenth).   1. Find the distance between Aurora and Naperville. 2. Find the distance between Fenwick and Chicago. 3. Which distance is greater? |
| 3) What is the distance between the points at (-5,6) and (2,-8) in the standard (x,y) coordinate plane?   1. -7 | 4) Graph and find the distance for the following (round to the nearest tenth):   1. A(-4, 2) and B(2, 7) 2. P(7, 3) and Q(2, 1)   What line segment is the longest? What line segment is the shortest? What is the difference in the lengths of the two segments? |
| 5) After passing his driver’s ed. class, Alexis is driving from the corner of Ashland and 63rd (represented by the point -16, -63) to the original Noble campus, which is located on the corner of Augusta and Noble. The original campus is located at 1000 north and 1400 west (represented by the point  (-14, 10) ). How many blocks did Alexis drive? | 6) Use the distance formula to find the length of a diagonal in rectangle RECT having coordinates R (0,1), E(0,5), C(6,5), and T (6,1). (Hint: Draw the picture first!)   1. 52 |
| 7) What is the length of the longest side of the triangle whose vertices have coordinates A(-1, -2), B(4,2), and C (-2,4)? | 8) Find the radius of a circle, given that the center is at (2, –3) and the point  (–1, –2) lies on the circle. Round to the nearest hundredth. |